**Static methods Exercises**

1. Write a Java static method to compute the average of three numbers by defining

class Average\_StaticMethod and static method Average() with three double parameters and return value of double by getting the numbers through keyboard in the main method.

I/O

Input the first number: 4.5

Input the second number: 5.6

Input the third number: 7.1

The average value is 5.733333333333333

Write a Java method to find the smallest number among three numbers.

2. Write a Java static method to compute the smallest of three numbers by defining

class Smallest\_StaticMethod and static method Smallest() (use Math.min() to find the smallest of three numbers ) with three double parameters and return value of the smallest number by getting the numbers through keyboard in the main method.

I/O

Input the first number: 5.6

Input the Second number: 7.8

Input the third number: 9.3

The smallest value is 5.6

3. Write a Java static method to display the middle character of a string (Use same class and static method as the above example)

Note: a) If the length of the string is odd there will be two middle characters.  
b) If the length of the string is even there will be one middle character.

Hint : use str.length() to find length of the string and str.substring(start\_position, end\_position);

I/O

Input a string: Badhusha

The middle character in the string: hu

4. Write a Java static method to count all vowels in a string

Test Data:

Input the string: Dr.Sm.Badhusha

Number of Vowels in the string: 3

5. Write a Java static method to sum all the digits in a number

Test data

import java.util.Scanner;

public class Exercise6 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input an integer: ");

int digits = in.nextInt();

System.out.println("The sum is " + sumDigits(digits));

}

public static int sumDigits(long n) {

int result = 0;

while(n > 0) {

result += n % 10;

n /= 10;

}

return result;

}

}

Average

import java.util.Scanner;

public class Exercise2 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input the first number: ");

double x = in.nextDouble();

System.out.print("Input the second number: ");

double y = in.nextDouble();

System.out.print("Input the third number: ");

double z = in.nextDouble();

System.out.print("The average value is " + average(x, y, z)+"\n" );

}

public static double average(double x, double y, double z)

{

return (x + y + z) / 3;

}

}

Smallest number

import java.util.Scanner;

public class Exercise1 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input the first number: ");

double x = in.nextDouble();

System.out.print("Input the Second number: ");

double y = in.nextDouble();

System.out.print("Input the third number: ");

double z = in.nextDouble();

System.out.print("The smallest value is " + smallest(x, y, z)+"\n" );

}

public static double smallest(double x, double y, double z)

{

return Math.min(Math.min(x, y), z);

}

}

Middle char

import java.util.Scanner;

public class Exercise3 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input a string: ");

String str = in.nextLine();

System.out.print("The middle character in the string: " + middle(str)+"\n");

}

public static String middle(String str)

{

int position;

int length;

if (str.length() % 2 == 0)

{

position = str.length() / 2 - 1;

length = 2;

}

else

{

position = str.length() / 2;

length = 1;

}

return str.substring(position, position + length);

}

}

Vowel count

package Basic;

import java.util.Scanner;

public class Count\_Vowel{

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input the string: ");

String str = in.nextLine();

System.out.print("Number of Vowels in the string: " + count\_Vowels(str)+"\n");

}

public static int count\_Vowels(String str)

{

int count = 0;

str=str.toLowerCase();

for (int i = 0; i < str.length(); i++)

{

if (str.charAt(i) == 'a' || str.charAt(i) == 'e' || str.charAt(i) == 'i'

|| str.charAt(i) == 'o' || str.charAt(i) == 'u')

{

count++;

}

}

return count;

}

}

**Digit sum**

import java.util.Scanner;

public class Exercise6 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input an integer: ");

int digits = in.nextInt();

System.out.println("The sum is " + sumDigits(digits));

}

public static int sumDigits(long n) {

int result = 0;

while(n > 0) {

result += n % 10;

n /= 10;

}

return result;

}

}